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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/815,568	03/23/2001	Rick V. Murakami	9437.13	6499

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EXAMINER

SUN, XIUQIN

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 11/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/815,568

Applicant(s)

MURAKAMI ET AL.

Examiner

Xiuqin Sun

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,8-11,15-20,22,24-27,31-35,37and39-42 is/are rejected.
- 7) ☒ Claim(s) 7,12-14,23,28-30,38 and 43-45 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 6, 8-11, 15-20, 22, 24-27, 31-35, 37 and 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bianco et al. (U.S. Pat. No. 6256737) in view of Keyware (EP 1081632 A1), Sullivan et al. (U.S. Pat. No. 6591224) and Beatson et al. (U.S. Pat. No. 5892824)

Bianco et al. teach a system, method and computer program product that utilizes biometric measurements for the authentication of users to access to enterprise resources (see abstract; col. 2, lines 53-67 and col. 3, lines 1-48). Bianco et al. further suggest the importance of calibrating the biometric authentication system over time (col. 8, lines 1-8 and col. 28, lines 43-52). Bianco et al. further teach a process for generating a template fingerprint, comprising the steps of: obtaining an authenticating biometric value from an actual biometric measurement (col. 8, lines 26-27); integrating the obtained authenticating biometric value into an authenticating template (col. 35, lines 54-67, col. 36, lines 1-55, col. 40, lines 43-67 and col. 41, lines 1-8). Bianco et al. further teach that the integration of the weighted value is accomplished by averaging the

weighted value into the authenticating range of values (col. 36, lines 1-43), and the step of averaging the weighted value further comprises multiplying the authenticating measured value by a multiplier (col. 36, lines 1-43). Bianco et al. further teach that the authenticated biometric values include measurement of histological and physiological biometric markers (col. 12, lines 51-61), and one of the biometric markers being measured is an internal biometric marker (col. 12, lines 51-61).

Bianco et al. do not teach explicitly: adaptably weighting the authenticating biometric value; biometric value is adaptably weighted based upon consistent differences in authenticated measured biometric values; biometric value is adaptably weighted based on the frequency of use of the biometric authentication device; biometric value is adaptably weighted based on the number of uses of the biometric authentication device. Bianco et al. also do not mention explicitly that: the step of obtaining an authenticated biometric value comprises determining that a measured biometric value falls within a predetermined range of biometric values.

Keyware teaches the step and means of weighting the authenticating biometric value, obtained from one of a plurality of bio-engines performing different biometric authentication operation, at its result or score level (see Abstract; col. 8, lines 6-30; col. 9, lines 36-51; col. 10, lines 45-51; and col. 11, lines 20-44).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Keyware weighting technique in the Bianco system in order to combine the outcome of different biometric authentication

operation to account for variability in biometric measurements (Keyware, col. 1, lines 44-56 and col. 8, lines 12-30).

Sullivan et al. teach the step and means of weighting the authenticating biometric values adaptably, wherein said biometric values are adaptably weighted based upon consistent differences in authenticated measured biometric values, wherein said biometric values are adaptably weighted based on the number of uses of the biometric authentication device (col. 7, lines 21-67 and col. 8, lines 1-26). Sullivan et al. also teach the step and means of weighting the authenticating biometric value based on the frequency of use of the biometric authentication device (col. 1, lines 38-56; col. 7, lines 21-67 and col. 8, lines 1-26).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Sullivan weighting technique in the Bianco system in order to update the algorithm for weighting the biometric values dynamically to provide more objective assessment of biometric results (Sullivan et al., col. 3, lines 46-55).

Beatson et al. disclose a biometric template updating process for signature verification, and suggest one to calibrate a biometric authentication system by updating the biometric template over time, such that said system is adaptable to changes in a user's biometric over time (col. 6, lines 56-58, col. 19, lines 39-67 and col. 20, lines 1-14). The disclosure of Beatson et al. further includes a step of obtaining an authenticated biometric value that comprises determining that a measured biometric value falls within a predetermined range of biometric values (col. 19, lines 23-38).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Bianco, Keyware, Sullivan and Beatson together in order to provide a better method and system for biometric authentication and activation which method takes into consideration of changes over time of histological and physiological biometric markers and which system can be calibrated over time (Beatson et al., col. 6, lines 9-15 and col. 19, lines 49-67).

Allowable Subject Matter

3. Claims 7, 12-14, 23, 28-30, 38 and 43-45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance:

The primary reason for the allowance of claims 7, 23 and 38 is the inclusion of the step and means of adaptably weighting biometric value based upon trends in measured authenticating biometric values. It is this limitation found in each of the claims, as it is claimed in the combination that has not been found, taught, or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 12, 28 and 43 is the inclusion of the method step of weighting the authenticated biometric values to accommodate for known changes in a biometric marker. It is this step as it is claimed in the combination

that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 13, 29 and 44 is the inclusion of the limitation biometric values are that said univariate values. It is this limitation as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 14, 30 and 45 is the inclusion of the limitation the biometric values are multivariate values. It is this limitation as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Response to Arguments

6. Applicant's arguments with respect to claims 7, 23 and 38 are persuasive and, therefore, the rejections of claims 7, 23 and 38 as indicated in the last Office action mailed on 07/22/2003 has been withdrawn.

Applicant's arguments with respect to claims 1-4, 6, 8-11, 15-20, 22, 24-27, 31-35, 37 and 39-42 have been considered but they are not persuasive.

The applicants argued that the prior art referenced in the Office Action dated July 22, 2003 "fails both to teach or suggest all the claim limitations and to clearly and particularly suggest the combination indicated by the Examiner". This argument is not persuasive.

Firstly, it is deemed that the combination of the prior art references cited in this Office Action does teach or suggest all the limitations of the claims 1-4, 6, 8-11, 15-20, 22, 24-27, 31-35, 37 and 39-42. For detailed response, please refer to section 2 set forth above. Secondly, the Examiner recognizes that the test for obviousness is not whether the features of a second reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined

teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, it is deemed that the inclusion of Keyware weighting technique in the Bianco system and method is obvious to one of ordinary skill in the art in order to evaluate the combined outcome of different biometric authentication operation to account for variability in biometric measurements, as motivated by Bianco et al. (col. 8, lines 1-67 and col. 9, lines 1-7) and Keyware (col. 1 lines 44-56 and col. 8, lines 12-30). It is also deemed that it is obvious to one having ordinary skill in the art to include the teachings of Sullivan et al. in the combination of Bianco et al. and Keyware in order to provide a more objective assessment of biometric results by dynamically updating the algorithm of calculating the weighted average of biometric values, as motivated by Bianco et al. (col. 8, lines 1-67 and col. 9, lines 1-7) and Sullivan et al. (col. 3, lines 46-55). It is further deemed that the Examiner has identified the suggestion or motivation that would lead one skilled in the art to combine the teachings of Beatson et al. with the inventions of Bianco et al., Keyware and Sullivan et al. to provide a better method and system for biometric authentication and activation which method takes into consideration of changes over time of histological and physiological biometric markers and which system can be calibrated over time (see: Bianco et al., col. 8, lines 1-67 and col. 9, lines 1-7; Beatson et al., col. 6, lines 9-15 and col. 19, lines 49-67).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208

USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Specifically, it would have been obvious that the combination of the teachings of these four reference would lead one of ordinary skill in the art at the time the invention was made to implement Bianco's suggestion of the importance of calibrating the biometric authentication system over time (Bianco et al., col. 8, lines 1-8 and col. 28, lines 43-52) by including the step and means of adaptably weighting an authenticating biometric value, as taught by Keyware (col. 8, lines 6-30; col. 9, lines 36-51; col. 10, lines 45-51; and col. 11, lines 20-44), Sullivan et al. (col. 7, lines 21-67 and col. 8, lines 1-26) and motivated by Beatson et al. (col. 6, lines 9-15 and col. 19, lines 49-67).

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiuqin Sun whose telephone number is (703)305-3467. The examiner can normally be reached on 7:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (703)308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

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XS

November 17, 2003


John Barlow
Supervisory Patent Examiner
Technology Center 2800